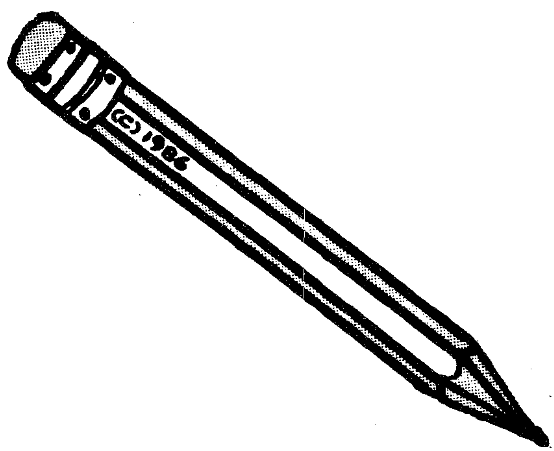
The First XLEnt

WORD PROCESSOR

by David Castell



For the Atari 130 XE &
48K Home Computers

XLEnt Software

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INTRODUCTION

Congratulations on your purchase of The First XLENT Word Processor. This is the first time XLENT Software has released a program that can be directly compared to others on the market. In the past, we have given you unique, powerful applications such as Typesetter that have no equal. However, we think this is the best word processor for your Atari. It is powerful and full featured yet a breeze to use. Powerful enough for us to write this manual, yet simple enough for personal letters. Don't be overwhelmed by the number of features--they are there so that you'll never outgrow this word processor. In keeping with our goals, we have given you a powerful tool at a reasonable price. Congratulations again on purchasing the first word processor good enough for us to put our name on.

A WORD ON PIRACY

All the staff of XLENT software are computer users. We know that having copy protected programs can be a royal pain in the temple. Looking to our legitimate usrs' needs first, we have decided to NOT copy protect The First XLENT Word Processor. This means you will be able to make a back-up copy of the program. This is what we have done for you.

Here is what we ask you to do for us. Please do not give away copies of the program to anyone. Not only is this stealing, but it deprives David and XLENT Software from making a modest profit on the program. If the thin line of modest profit disappears then XLENT might follow suit, and David might return to the cave from which he appeared. Seriously, pirating hurts the entire computer community. Your honesty and support is appreciated.

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RUNNING THE FIRST XLENT WORD PROCESSOR

First, turn on your printer, disk drives and interface (if necessary). Then place The First XLENT Word Processor disk into your drive and turn on your computer. Normally the word processor will load automatically. If you want to run either the Printer Construction Utility or Microscreen Formatter, press any key while the program is loading. This will bring up a menu with these selections. Use the arrow keys to pick the program you want to run, then press **RETURN** to load it.

A NOTE ABOUT THE AUTHOR

David Castell is a student in Peterborough, Ontario, Canada. He is also the president of his local Atari users' group. David has owned an Atari 400 since 1981, but now also has a 130XE and 520 ST.

David has written a couple of video games intended for commercial release. Unfortunately, by the time the first game was finished, it was already outdated by games with better graphics. The second game, which boasted better graphics, was finished in the midst of the declining popularity of video games. Both games are now just gathering dust somewhere among the other disks in his disk case.

It was at this point he gave up trying to conquer the elusive video game market and started concentrating on writing a word processor and several utilities. One of the utilities was accepted by ANALOG Magazine, but has yet to be published. Some of his other programs have found their way into the public domain while others haven't made it out of his disk case.

David is currently writing programs on the 520ST, but plans to continue programming on his 130XE.

USING THE EDITOR

1. INTRODUCTION TO THE EDITOR

When the word processor first loads in, you will see the editing screen. The line at the very top of the screen is the tab line and the next twenty lines are the editing window. You create and edit your document in this window. The last four lines are the command window.

The command window is used for status reports, messages, and prompts from various functions. At the right side of the command window are six icons which represent certain functions. These functions are, clockwise from the top left, PRINT (fancy 'P'), COPY (camera), CUT (scissors), PASTE (paste bottle), SEARCH (glasses), and DISK UTILITIES (floppy disk).

When the word processor first loads in, the cursor appears at the top left corner of the editing window. You are now in the editing mode. In this mode, text can be added or edited. The cursor is moved by using the cursor keys or the joystick, but the cursor cannot be moved past the end of the text. Therefore, when there is no text you will not be able to move the cursor. By pressing ESCAPE or the joystick button, the icon selection mode is entered. A large cursor will appear over one of the icons. Move the cursor over the desired icon using the arrows or joystick and press RETURN or the fire button to select the corresponding function.

The ESC key acts as an abort key in practically every area of the word processor. By pressing the ESC key, you will usually be returned to the editing mode. However, if you have selected a disk function, pressing ESC will return you to the disk option menu. From this menu, pressing ESC will return you to the editor.

Most questions asked by the word processor have a default option. The default will appear in reverse (black on white) after the question mark. Pressing any key (other than the keys that select the other options) will select the default option.

2. SIMPLE EDITING FUNCTIONS

Most of the simple editing functions operate in a manner similar to the BASIC editor. These functions include:

BK SP - causes the cursor to move to the left one character, deleting the character to the left as it moves.

CONTROL+DELETE - deletes the character at the cursor. The cursor does not move.

CONTROL+INSERT - inserts a space at the cursor. The cursor does not move.

SHIFT+CLEAR - erases the document in memory. You will be asked if you are sure this is what you want to do.

CAPS - toggles between upper and lower case. An arrow beside the icons at the bottom of the screen indicates which case is active. On the 400/800 version SHIFT is NOT needed to select upper case.

BREAK - moves the cursor to the beginning of the next line.

The following two functions are similar to, but not exactly the same as the BASIC editor:

SHIFT+DELETE - Allows you to delete a word, sentence, paragraph, or line. Deleting a line is the default so pressing any key other than W, S, or P will delete a line in the same manner as the BASIC editor would. Deleting a word, sentence, or paragraph entails deleting all characters up to and including the first "space", "period", or "return", respectively.

SHIFT+INSERT - Toggles between the INSERT and TYPEOVER modes. The typeover mode is the default. When editing text in the typeover mode, new text writes over old text. In the insert mode, old text is "pushed out of the way" as new text is added.

3. TAB FUNCTIONS

You will notice at the top of the editing screen there is an extra line. The down arrows represent tab stops, the dots represent columns, and the flashing bar represents the column the cursor is currently in. The tab functions you are probably familiar with from the BASIC editor are:

TAB - moves the cursor to the next tab stop.

SHIFT+TAB - creates a new tab stop at the current cursor column. An arrow will appear on the tab line at the top of the screen at the corresponding column.

CONTROL+TAB - clears the tab stop at the current cursor column. The arrow (if any) at the corresponding column on the tab line will disappear.

The following tab commands will be new to you:

SHIFT+CONTROL+TAB - clears all tab stops. All arrows on the tab line disappear.

SHIFT+CONTROL+R - resets the tab line. Tabs stops are set every 5 spaces, any extra tab stops are cleared.

4. ALIGNMENT MODE

This mode allows parts of strings to be right aligned to the current cursor position. Pressing the REVERSE key invokes the alignment mode. This key is the Atari logo key on the

400/800 and on the XL/XE it is the BLACK/WHITE key at the bottom right corner of the keyboard.

The most common use of this function would be for a decimal tab, which allows you to easily line up the decimal points when entering a column of numbers. You would set a tab stop at the column in which you want to line up the decimal points, and then in each row tab over to this column and then start the alignment mode.

In the alignment mode, when characters are entered they are "pushed to the left". In pressing the BACK SPACE key, the string is "pulled back to the right" and the last character entered is deleted. The cursor remains stationary. When the "end" character is entered, it appears in the column under the cursor, the cursor moves to the right, and the alignment mode is cancelled.

In the case of a decimal tab, you would want this "end" character to be the decimal point. That way the part of the number before the decimal point is pushed to the left of the current cursor column, the decimal point appears at the current cursor column, and the rest of the number appears to the right.

To start the alignment mode, press the REVERSE key followed by the "end" character. For decimal tabs, it would be the decimal point. If you wanted to right align words, the "end" character might be a "space" or even a "return".

Press any editing key, except BACK SPACE or TAB, to prematurely exit the alignment mode.

When the alignment mode is active, a "#" sign appears in the message window.

5. ADVANCED EDITING COMMANDS

Pressing START once moves the cursor to the top left corner of the current screen. Pressing START again moves the cursor to the beginning of the document.

The following functions are accessed by pressing SHIFT+CONTROL plus:

5 - Decrements background color
6 - Increments background color
7 - Decrements text luminance
8 - Increments text luminance
E - Moves cursor to the end of text.
W - Turns wordwrap on and off. If wordwrap is on, words that are split between the end of one line and the beginning of the next are moved down to the next line for easier editing and proofreading. With wordwrap off, words are left split between two lines, so charts and text can be lined up in columns easier.
, - Since the joystick can be used at any time in place of the cursor keys, it is sometimes desirable to speed up or slow down the rate at which the cursor moves as a

result of using the joystick. This function lets you alter this speed. Values range from 1-9, where 1 is the fastest. The default is 3. When activated, the current value appears in the message window.

, - Allows an XL/XE user to alter the rate of the key repeat in the same way as the joystick rate. The default is 6.

M - The word processor has the ability to remember up to five specific points in a document and at any time you can have the cursor go to one of these points (using the SHIFT+CONTROL+G). These five markers don't have to be in the same window, but you can't go to a point in another window unless you first flip to that window. NOTE: If text is added or deleted before a marker, the marker will stray from its intended position by the number of characters added or deleted. This function is useful in a long document.

G - Go to one of the five marked positions.

S - This function allows you to load a new character set for use in the editor (this does not change the font used when printing to the printer)

P - This function allows you to delete all text from any point to any point. After selecting this function you are prompted to move the cursor to the starting point and then to the ending point of the text to be deleted.

ESC - Toggles the cursor shape between a square to an underline.

CLR - Deletes all text from the current cursor position to the end of text. You will first be prompted to confirm this request.

SPACE - Highlights all the spaces on the screen that are put in as a result of wordwrap or a return character. If you accidentally put two spaces between a word at the end of one screen line and the word at the beginning of the next, with wordwrap you would notice this. This function allows you to pick out this type of error quickly without having to turn off wordwrap.

UP ARROW - Moves the cursor up one screen length.

DOWN ARROW - Moves the cursor down one screen length.

6. USING THE TEXT BUFFER

The CUT/PASTE buffer is a section of memory that can hold a screen of text (i.e. 800 characters) This is used as temorary storage when text is to be moved or copied from one part of a document to another.

The COPY function lets you copy a section of text to the CUT/PASTE buffer. To select the copy function, press ESCAPE, move the cursor over the copy icon (camera) and press RETURN. You will then be asked to move the cursor to the starting point of the text to be copied to the buffer. Then press RETURN. You will notice that, after pressing RETURN, the screen moves so that the starting point is now the top line of the display. A maximum of 20 lines of text can be copied, therefore, the screen has been reoriented so that you immediately see this limit. Now, move the cursor (as the text is highlighted) to the ending point of the text you want to copy and press RETURN.

The CUT function is similar to the copy function except that the text is deleted from the document when it is copied to the buffer. To select the CUT function, press ESCAPE, move the cursor to the CUT icon (scissors) and press RETURN. Select th text to be CUT in the same manner as the copy function.

The PASTE function inserts text from the CUT/PASTE buffer into the document. After selecting the PASTE icon (paste bottle) you will be asked to position the cursor to the location at which the text is to be inserted. Press RETURN and the text will be inserted into the document. The contents of the CUT/PASTE buffer remains intact until the next copy or cut, so you may paste the text as many times as you wish.

With these three functions you can: duplicate text using COPY & PASTE, move text using CUT & PASTE, and delete text using CUT with the ability to undo using PASTE.

These three functions have been set up so they can be used with a joystick. The joystick button is used for accessing the icons, selecting the icons, and selecting the starting and ending points for CUT and COPY or the point where PASTE will occur. The joystick is used for moving the icon cursor to the proper icon and moving the cursor in the text to select the proper points.

Another function which pertains to the CUT/PASTE buffer is the buffer editor.
SHIFT+CONTROL+T - enters the buffer editor.

The buffer editor looks the same as the normal editor except that instead of your document, you will be editing the CUT/PASTE buffer. If you have previously cut or copied text, you will see that text on the screen. You can use all the editing functions to edit the buffer except those portrayed by the icons. Any editing done alters only the CUT/PASTE buffer, not the document. For example, SHIFT+CLR only erases the text in the CUT/PASTE buffer and does not harm the document in any way.

To exit the buffer editor press ESC. The buffer editor lets you edit the text you have just cut or copied before you paste it back into the document. You can create new text to be pasted into the document by clearing the buffer (SHIFT+CLR), typing in a paragraph, and then pasting this paragraph into the document.

SHIFT+CONTROL+U - to bypass the icon selection process and go directly to the disk utilities menu.
This function is available so that you can save and load text directly in and out of the CUT/PASTE buffer.

7. MEMORY MANAGEMENT

There are several commands available to help you keep track of the memory available.

SHIFT+CONTROL+F will display how much memory is left in characters.

SHIFT+CONTROL+? will display how many sectors (at 125 bytes per sector) are needed to save the current document to disk.

SHIFT+CONTROL+N counts the number of words in the document being edited.

8. EDITING A LARGE DOCUMENT

When editing text near the beginning of a document that uses a fair bit of memory, you will find that inserting and deleting characters is slower than normal. With deleting, you can always use SHIFT+DEL to delete groups of characters at a time, since it takes the same length of time to delete a word or a paragraph as it does a single character. However, with inserting, a couple of functions have been added to help out with this problem. Using the INSERT mode to insert a group of words might be to slow. If this is the case, switch to the TYPEOVER mode and press SHIFT+CONTROL+INSERT.

SHIFT+CONTROL+INSERT - This function opens up six blank lines

Type your new text in this blank area. Press SHIFT+CONTROL+INSERT a few more times if you need more space. When you are through adding new text, you will probably have a gap of spaces left over. Just press SHIFT+CONTROL+DELETE to close up this gap.

SHIFT+CONTROL+DELETE - delete all the spaces between the cursor and the next body of text.

If you wish to add a paragraph somewhere near the beginning of a long document, you can also use the buffer editor (SHIFT+CONTROL+T). Write your paragraph in the buffer editor and then use the Paste function to add it to your document.

9. TEXT WINDOWS

A text window is an area of memory where text can be edited and kept separate from the text in other text windows. In a sense, the CUT/PASTE buffer is a "text window" since you can edit text in it without altering the document in the main window. However, you also can divide the main window into two smaller windows. The main purpose for this is to edit two separate documents in memory at the same time. The CUT/PASTE buffer is shared between these two text windows so you can cut, copy, and paste text between the two documents in these windows.

CONTROL+SHIFT+2 - create dual text windows

Since this divides memory into two separate windows, it is

possible that the document currently in the main window is too long, and will be truncated when the second window is created. If it is too long, you will be asked to confirm that you are sure about creating the second window. If you do not want the end of your document to be cut off, press 'N'. If the document is not too long, the second window will be created automatically. A message appears at the bottom of the screen that will inform you that you are editing in window 2. Now that you have created the second window, you can flip back and forth between the two windows.

CONTROL+SHIFT+1 - go to window 1
CONTROL+SHIFT+2 - go to window 2

ALL the word processing functions can be used in the active window. This includes editing functions, icon functions, and the printing function.

CONTROL+SHIFT+3 - close the second window and return to one main text window. You will be asked to confirm the function since all text in window 2 will be lost.

To cut, copy, and paste between the documents in the two text windows, just cut or copy in one window, then flip to the other and use the paste function.

10. NOTES ABOUT THE EDITOR

When executing a function that requires you to move the cursor to select a start or end point (eg. CUT, COPY, PARTIAL DELETE, etc) or to select an icon, you do not need to hold down CONTROL when using the arrow keys. The only time you need to hold down CONTROL with the arrow keys is during text entry.

When executing a function that requires you to move the cursor to select a start point, only some of the editor functions (SHIFT+CONTROL+key) can be used. Only the functions that don't alter the command window can be used. This is to ensure that the message prompting you to move the cursor remains intact.

When selecting the END point of the text to CUT or COPY, NO editor functions can be accessed. You can only use the cursor keys, joystick, or the TAB key to move the cursor.

11. SEARCH (Glasses Icon)

The SEARCH function allows you to search through the text for a certain sequence of characters and, using the REPLACE feature, replace these words. There is also a SEARCH and DELETE feature.

Before selecting the SEARCH icon, the cursor should be positioned to the start of the text to be searched. If you want to search the entire document, press START twice to move the cursor to the start of the text. Then press ESC and select the SEARCH icon (a pair of glasses). You will then see the message "SEARCH FOR:" on the first line of the function window and the second line will be empty except for the RETURN symbol (reverse left arrow). This RETURN symbol marks the maximum possible length of the SEARCH string, which is 30 characters. The SEARCH string can consist of any sequence of characters including the CONTROL+key and OPTION+key characters. Letters in the SEARCH string can be in either upper or lower case, but it does not matter because the SEARCH function finds all occurrences whether they are in upper or lower case. The asterisk '*' can be used as a single character wildcard, but only in the search string. For example, the search string 'f*n' will find words such as 'fun','fin',and 'fan'. When you have entered the SEARCH string, press RETURN to go on.

You will now be prompted with the message "REPLACE WITH: (RETURN TO SKIP)". If you only want to us the SEARCH function, press RETURN. Otherwise, type in a REPLACE string. Entering the REPLACE string is the same as entering the SEARCH string.

To use the SEARCH and DELETE function, press CONTROL+DELETE instead of entering a REPLACE string. This function is the same as the REPLACE function, so all prompts after selecting this function will still use the word REPLACE instead of DELETE.

NOTE: If you intend to use the SEARCH and DELETE function, when entering the SEARCH string you should include a space before the string you want to delete. This is to avoid having two spaces between the words that surrounded the string in the text, after the string is deleted.

Example:

BEFORE deletion of "fox"	The quick brown fox dog.
AFTER deletion of "fox"	The quick brown dog.
AFTER deletion of " fox"	The quick brown dog.

If the REPLACE or DELETE function has been selected, the question "Global Replace?" will appear. If you select Global Replace all occurrences of the SEARCH string that are found will be replaced (or deleted) without pausing at each occurrence. Normally when an occurrence is found, the cursor appears and points out the position of the occurrence on the screen and you are asked if you want to replace (or delete) this occurrence. You will then be asked if you wish to keep searching for more occurrences. If you don't wish to continue, you will be returned to the editor.

If you only selected the SEARCH function, at each occurrence the cursor appears and points out the position of the occurrence. You are then asked if you wish to keep

searching for more occurrences. In all cases, when the search has reached the end of the text, the message "NO MORE MATCHES" is displayed. Press any key to return to the editor.

Note: On XL/XE computers, the icons appear to be temporarily blanked out during the search function. The reason is that the icons and the international characters can't appear together in the bottom window. Since the search function would be lacking if it could not search for international characters, the icons are blanked out during this function.

12. DISK UTILITIES (Disk Icon)

This option lets you load and save text files and also access some other disk functions. After selecting this function, a special disk option menu is displayed. There are six different options, each with a number beside it. To select one the options, press the corresponding number. The six options are as follows:

DIR - Disk directory. Only 40 filenames can be displayed. The directory remains on the screen until you return to the editor or until you select another disk function which uses the screen. THE DIRECTORY IN NO WAY ALTERS ANY OF THE TEXT IN MEMORY.

LOAD - Load a text file. After selecting this function you are presented with another menu listing the three ways in which files can be loaded. Select the method you wish by pressing the number listed beside it. These three methods are as follows:

NORMAL - This method erases the file in memory and then loads the desired file into memory.

APPEND - This method appends the desired file to the file in memory.

INSERT - This method lets you insert the desired file into the file in memory. After entering the filename, the cursor is put back into the text and you should position the cursor to the point where you wish the file to be inserted and press RETURN. The file is then inserted between the character to the left of the cursor and the character under the cursor.

At some point in each of these three methods you will be asked to "Enter Filename:". Just type the name of the file you wish to load and press RETURN. If you just press RETURN without entering a filename, the filename will be taken from the text at the last position of the cursor. Therefore, before pressing ESC, you can position the cursor to the first character of the filename

(do not include the "D:"). This method is the easiest way to load the next link in a 'nx' or 'ex' chain since it saves having to type in the filename. This method will work any time you are asked for a filename, except for the SAVE name.

SAVE - Save a text file. After selecting this option, you will be asked if you wish to save the entire file. If you do not, then the cursor will be placed back in the text window and you will be prompted to move the cursor to the start of the text to be saved and press the RETURN or joystick button. You will then be prompted to select the end of the text to be saved in a similar manner. Then you will be asked to give a filename for the text to be saved. If you have previously entered a filename to Load or Save, it will be displayed beside the "Enter Filename:" prompt. Pressing RETURN will select this name. If there is a file with the same name on the disk, you will be asked if you wish to replace it. The computer then starts saving the document to the disk.

DELETE - Delete a file on disk. After selecting this option, you will be asked for the name of the file to delete. If it is on the disk it will be deleted.

FORMAT - Format a disk. This option allows you to format a blank disk so it can be used to save documents.

SPOOL - Spooling is a term which refers to a direct connection between two devices which does not need to use the memory as a buffer. The two devices in this SPOOL function are the disk drive and the screen. This means you can display the contents of a text file on the screen without altering the file already in memory in any way. This allows you to see what is in a text file before clearing memory to load it or you may want to see the way a certain sentence or phrase is worded in another text file, so you can use it in the file you have in memory.

After selecting this option, you will be asked for the name of the file to SPOOL. The file is displayed a screen length at a time with no word wraparound. Press any key to display the next screen length or press ESC to return to the disk option menu. When the last screen length is displayed, the message "PRESS KEY/BUTTON TO RETURN" is displayed in the function window.

CONTROL+D - Exit to DOS. You can exit to DOS from the disk utility menu. If MEM.SAV is functioning and you do not invalidate MEM.SAV while using DOS, press RESET to return to the editor. Otherwise, use the binary load option to load the file AUTORUN.SYS.

DISK ERRORS

If any disk errors occur when executing a disk function, the error number is displayed. Press any key to return to the disk option menu.

USING THE TEXT FORMATTER

13. INTRODUCTION TO THE TEXT FORMATTER

The text formatter is a program that prints out your document and interprets the format lines and other special characters inserted into your document. On the XL/XE version, the text formatter screen contains a two line command line at the top of the screen. On the 400/800 version the command window appears at the bottom of the screen. In the middle of the screen on both versions is a high resolution display area. This area is used for the 80 column screen preview.

ESC - while in the text formatter will return you to the editor.

When printing begins, you can press any key to pause printing. Whenever the prompt "PRESS SPACE BAR TO CONTINUE" appears in the command window:

SPACE BAR - will continue printing.

RETURN - will take you back to where you first entered the text formatter.

ESC - will return you to the editor.

14. HOW TO PUT PAPER INTO THE PRINTER

This title may sound a little bit condescending, but it is not meant to be. This word processor uses a method a little bit different than most word processors and, consequently, the paper must be aligned in a different manner. Using formatting directives within the text, you set the number lines per physical page and the number of lines to be printed per page. The difference represents the total amount of "white space" at the top and bottom of each page. The default is 12 lines, which is two inches. Ideally, this would mean a one inch margin of white space at the top and a one inch margin at the bottom. With most word processors you would line the printhead up with the very top edge of the paper and when printing begins the one inch margin will be put in. However, with the paper just barely into the printer and the edge so close to the printhead, there is a greater chance of the paper slipping or getting caught. With this word processor, when inserting the paper, you line the printhead up to the line you want the printing to start

on. In the default case, mentioned above, the paper would be positioned so the printhead is about an inch down the page. If you line it up a little more or less than this inch, the bottom margin will be a little less or more than an inch, respectively.

The only exception to the method described above is when there is a header (eg. page number) to be printed at the top of the page. If this is the case, you must line the printhead up with the line you wish the header to be printed on. Using format directives, you select how many lines the header is to appear above the text, the default is 3 (half inch). Therefore, when lining up the page for the default header, the printhead should be a half inch down the page.

15. FORMATTER QUESTIONS

Before the document is printed out, you must answer a series of questions regarding how the document is to be printed.

SPECIAL: MERGE, # OF COPIES,
DOUBLE COLUMNS (M/N/D)? SKIP

Most of the questions in the text formatter are set up like this one. First are the options, followed by the letters that select the respective options in brackets, followed by the default option. Usually, the default option is one of the letters in the brackets. Pressing any key, except a letter that selects one of the other options, selects the default option.

In this particular question, the default option is to skip this question. The first question refers to special functions that are available. Normally you would just press any key to skip these functions. If you want to print more than one copy of your document, press 'N'. When you are asked how many copies you want, enter the number and press RETURN. (NOTE: The double column option is only available on the XL/XE version)

OF FIRST PAGE? 1

This question should not be confused with the PRINT ENTIRE FILE question. This question refers to the page number of the first page. Pressing RETURN selects the default case, in which no header will be printed on the first page, and the second page will be numbered page two. If you want a header printed on the first page, enter a number (1-255) and press RETURN. If you want to use footers for page numbering and not headers, the first lines in the document must contain formatting directives to turn headers off and footers on.

PRINT ENTIRE FILE (Y/N)? Y

By hitting any key (except 'N') the entire document will be

printed. If you select 'N', you will then be asked for the first and last pages to be printed. Only the pages between and including these pages will be printed. Also, you must remember to compensate for the previous question. For example, if, in the previous question, you selected the first page to be numbered 5, and then in this question you select pages 2 to 4 to be printed, no pages will be printed out.

TO SCREEN, PRINTER, OR DISK (S/P/D)? S

This question allows you to select which medium you wish to output the document to. The default is the screen.

Outputting to the screen allows you to see how the document will look when it is printed to the printer without wasting any paper. To make the screen authentically 'mimic' the printer, output is in full 80 columns and a printhead moves across the screen printing the text. The printhead helps guide your eyes as the text is displayed. When the printhead is off, text is displayed considerably faster. If your text is formatted for more than 80 columns, it will wraparound in the screen preview mode.

BREAK - toggles the printhead on and off.

If you select output to the printer, you will be asked if you are using single sheets or continuous paper. Single sheets is the default and in this mode, printing is paused between each page so you can insert another sheet.

If you select Output to the disk, you will be asked for the filename. You MUST include the 'D:' at the beginning of the name.

One of the main uses of output to disk is to create a documentation file to be put on a user group software library disk or sent over the modem. If this is the case, on the very first line of the document, use format directives to set the left margin to 0, the right margin to 39, the number of lines per page to 66, and turn off the headers. Output will now be formatted for the 40 column screen with no page breaks.

Another use for outputting to the disk is if you wish to run the output through MEGAFONT from XLENT Software. This way you can use a much nicer font to print out your document. At the beginning of the document, set the margins to correspond to MEGAFONT's column sizes for your printer. For example, you might set margins to 10 and 110 to have even margins for the 120 column size. After printing the document to disk, load MEGAFONT, pick the font you want to use, and enter the filename of the document when it asks for the file to print. It should be noted that you CANNOT use any printer driver functions (eg. underlining, boldface) in your document if you wish to use MEGAFONT for printing it. See the section on Integration With Other Programs later in

this manual, for more information on using MEGAFONT with this word processor.

If you are using a printer that doesn't use device P: (eg. RS232 printers use R:), first print the document to disk, go to DOS and use the COPY function to copy the file to the proper device.

After the output question, when you are ready to print, press the SPACE BAR. At any time during the printing, you can press any key to pause it. Press the SPACE BAR to resume.

16. FORMATTING DIRECTIVES

A formatting directive is a sequence of characters entered by you as part of a document in the same manner as normal text. Format directives instruct the text formatter on how to prepare your document for printing. These directives control such things as margins, centering and line spacing. Format directives can be inserted throughout a document.

The restriction on formatting directives is that they can only be inserted into a document on a format line. A format line is a line that begins with OPTION+F on the XL/XE version or CONTROL+F on the 400/800 version, and ends with a RETURN character. A format line has to be on a line of its own, in that the line before it must end with a RETURN character, unless it is the first line of the document.

OPTION+F - format line for XL/XE version
CONTROL+F - format line for 400/800 version

Most directives, but not all, consist of two characters (upper or lower case) to identify the command (eg. 'lm' for left margin, 'rm' for right margin) followed by a number from 0 to 255. Sometimes this number represents the new value of that function and other times the number is just a one or a zero which turns the function on or off, respectively.

For example, the directive 'lm10' sets the left margin to 10. The directive 'ju1' turns right justification on and 'ju0' turns it off.

If the text formatter does not recognize the first two characters on a format line as being a directive, the format line is treated as a comment line and all text up to the next RETURN character is ignored and will not be printed. For example, "F This is a comment" will be treated as a comment because the first character after the 'F' is a space which is not recognized as being the first letter of a directive. In general, to insert a comment line into a document, just put a space after the 'F' at the beginning of the format line followed by your comment and then RETURN at

the end of the comment.

17. MARGIN DIRECTIVES

lm - LEFT MARGIN - with this directive you can change the left margin anywhere in the document. The default is a left margin of 10. Also available is a relative left margin. By using the directive 'lm+' or 'lm-' followed by a number, you can change the left margin in a relative sense. For example, if the left margin is currently 10, the 'lm+5' directive will cause text to be printed with a left margin of 15. However, if a 'lm+10' directive is placed a few lines later, text will be printed with a left margin of 20, NOT 25. Therefore, the relative margins do not accumulate. To return the margin back to normal, the 'lm+0' directive should be used. Whenever a fixed left margin is set, the relative margin is automatically set to zero. For example, if the current fixed margin was 10 and you wanted to indent an entire paragraph five spaces in from the current left margin, the 'lm15' directive would work fine. However, if later you decided you wanted to change the initial margin to 5 instead of 10, you would have to search through the document and change all of the margin settings of 15 to 10. If you used 'lm+5' to indent the paragraph, you would only have to change the fixed margin at the beginning to 5 and all the relative margins would now relate to this value, so 'lm+5' would now be 10 instead of 15.

rm - RIGHT MARGIN - with this directive you can change the right margin anywhere in the document. The default is a right margin of 70. There is also a relative right margin using the 'rm+' or 'rm-' directives. For example, a long quotation in paragraph form should be indented five spaces in from each margin. The relative margins 'lm+5' and 'rm-5' accomplish this without the hassle of recalculating the margin value. To return the margin back to normal, use a 'rm+0' directive. Whenever a fixed right margin is set, the relative margin is automatically set to zero.

mr - MARGIN RELEASE - this directive allows you to indent or outdent the FIRST line of the next paragraph. For example, you will notice that in this paragraph, the 'mr - ' is outdented from the rest of the paragraph. This can be accomplished by putting the directive 'mr-5' on a format line right before this paragraph. Similarly, you could have 'mr+' followed by a number, but this is less common since you can indent manually using the tab key or space bar in the editor.

ai - AUTOMATIC INDENTATION - Very similar to the MARGIN RELEASE directive, except that ALL paragraphs following this directive are outdented or indented until you use a 'ai0' or 'ai+0' to turn it off. In the paragraphs

above, the 'ai-5' directive was used to outdent all of these paragraphs 5 spaces. Another useful application would be to use 'ai+5' to indent all following paragraphs. Therefore, if you change your mind about indenting paragraphs, all you have to do is delete the 'ai+5' directive. If you used the tab key to manually insert five spaces at the beginning of each paragraph, you would have to delete the spaces at the beginning of each paragraph if you changed your mind.

18. VERTICAL SPACING & PAGING

In order for your document to be printed properly, the word processor must know the vertical size of the paper you are using.

pp - physical page length directive.

Using pp, you define the number of lines per physical page. Since normal paper size is 8.5" x 11" and six lines of text is printed per inch (vertically), the default is 66 lines per page. If you are using 8.5 x 11 paper there is no need to use this directive. However, if you are using legal size paper (8.5" x 14"), the number of lines per page is 84. Therefore, you would need a 'pp84' directive at the beginning of your document.

Another thing the word processor needs to know is how many lines of text should be printed per page. Usually, twelve lines are left blank for top and bottom margins, so 54 lines of text are printed per 8.5" x 11" page.

lp - logical page length directive

The 'lp' directive sets the number of lines to be printed per page. The default is 54, so if you are using 8.5" x 11" paper and want one inch margins at the top and bottom, there is no need to change this value. If you are using legal size paper (8.5" x 14") and you want one inch margins at the top and bottom, use a 'lp72' directive.

With these two directives set (or left to their default values), the text formatter will print the proper number of lines and then paging will occur. Paging is the process of advancing to the next page to resume printing. However, there will probably be times when you will want to advance to the next physical page before completing the current page. For example, if you were writing a book, you may want each chapter to start on a new page. When the text formatter encounters an 'fp' directive (not followed by a number), it automatically advances to a new page and resumes printing.

fp - force new page start directive

So at the end of a chapter or section, just insert the 'fp' directive to have the next chapter or section start on a new page.

There are other times when you have a group of paragraphs on one page, but at the bottom of the page only the first few lines of a paragraph are printed before paging occurs. It is standard practice to start a paragraph at the bottom of a page if about five lines of that paragraph can fit on the page before paging occurs. You could insert an 'fp' directive before that paragraph to start it on the next page, but if you later added or erased a paragraph toward the beginning of the document, the 'fp' could cause paging to occur in the middle of a page. However, if the 'fp' directive is followed by a number, paging will occur only if the number of lines left on that page is less than the number.

fpn - conditional force new page start, where n is number of lines left.

Therefore, in this case, you could put an 'fp5' directive before this paragraph and if text was later added or erased in the document, you wouldn't have to worry about paging occurring in the middle of a page.

A problem similar to the one above is when you have the last few lines of a paragraph printed at the top of a page. Instead, they should be 'squeezed' on to the end of the previous page. One solution is to put a 'lp' directive before the start of the paragraph (on the previous page) to increase the number of lines to be printed on that page so the whole paragraph is 'squeezed' onto the one page. However, right after the paragraph you will need to set the number of lines per page back to its normal value.

An easier solution to the above problem needs some explanation of the paging process. At the start of a page, a 'line counter' is set to zero. When each line of the page is printed, this line counter is increased by one, until it equals the number set by the 'lp' directive. When this happens, paging occurs, the line counter is set to zero and the whole process repeats itself. The 'cl' (current line) directive allows you to change the value of the line counter in the middle of the page.
cl - current line directive

This gives you a great deal of control over the paging process if you know how to use it properly. Among other things, it can let you indirectly change the number of lines printed on a page without affecting the number of lines printed on all other pages. For instance, in the problem mentioned above, if you wanted to 'sqeeze' the last two lines of a paragraph on the current page, before the

paragraph just insert the 'cl-2' directive. This decreases the line counter by two, therefore when it prints the 56th line, the formatter will think it just printed the 54th line and paging will occur. Since the line counter resets to zero for the next page anyway, there is no need to reset the line counter. Using the 'lp' solution, you would need to reset the number of lines per page.

There may be times when you want to move the last few lines of the current page to the next page, but these lines are in the middle of a paragraph. You can't insert an 'fp' directive in the middle of a paragraph, but you can have a 'cl+2' directive. This would mean, when the 52nd line is printed, the line counter will be at 54 and paging will occur.

Therefore, 'cl+n' has the result of printing 'n' less lines than normal on the current page and 'cl-n' has the result of printing 'n' more lines than normal on the current page.

CAUTION: When using the 'cl' directive, don't cause the line counter to become a negative number. For example, if the line counter is currently at line 2 and you use a 'cl-3' directive, the line counter will become -1. If the line counter becomes a negative, paging occurs.

When using tractor feed on most printers, when you line the printhead up one inch down the page when inserting the paper, the perforations of the paper haven't reached the tractor mechanism yet. Set your printer on friction feed (if possible) and press the linefeed button 'N' times, where 'n' is the number of lines needed before the perforations of the paper reach the tractor mechanism. On most essays and reports, the text on the first page should start several inches down the page and all following pages should have the regular one inch top margin. Now if you remember from earlier in the manual, normally you line the printhead up one inch from the top of the page and before printing begins, the line counter is set to zero. Since you have manually advanced the first page 'n' lines already, when printing begins you want the line counter to start at 'n' and not zero, so all following pages are printed with the normal top margin. Therefore on the first line of your document, have a 'cln' directive, where 'n' is the value to set the line counter to. With this procedure, you can have the proper top and bottom margins on each page without wasting the first piece of paper in a continuous stack each time. With letters, where a one inch margin is needed on the first page, there is no easy way to get around the tractor feed problem. Therefore, if you do not want to waste paper, use single sheets.

19. SPACING

Single spacing is the default when printing out a document. Use the 'sp' directive followed by a one for single spacing, two for double space, three for triple spacing, etc.

sp - line spacing directive

NOTE: If you have a RETURN character on a line of its own, it will only cause one blank line during printout regardless of what spacing you are using. This allows you greater control of the number of blank lines after titles and paragraphs.

If you want several blank lines to be printed out, instead of entering several return characters in the text, you can use the 'ln' directive. By following this directive with a number, that number of blank lines will be printed during printout.

ln - linefeed directive

For example, after the return address in a personal letter, there are usually 6-12 blank lines before the body of the letter. By inserting an 'ln12' directive after the return address, it would be easy to go back and change the 12 to 6 if the letter gets fairly long.

20. ALIGNMENT

To center text between the left and right margins, use the 'cn' directive followed by a one to turn centering on or a zero to turn it off. A special feature is the ability to center one line, such as a title, without using format lines or directives. Just precede the line with OPTION+C on the XL/XE version or CONTROL+C on the 400/800 version. This shortcut is really intended for one line titles. If you have a title with several lines to it (eg. main title,author,date,etc.), it would be easier to use the 'cn1' directive before the title and 'cn0' after, than to have an OPTION+C or CONTROL+C before every line of the title.

cn - center text directive
OPTION+c (XL/XE) - center line
CONTROL+c (400/800) - center line

Another feature is known as right alignment. To turn right alignment ON, use the 'ra1' directive and to turn it off use 'ra0'. When right alignment is on, lines are lined up at the right margin but are jagged at the left margin.

ra - right alignment directive

One use for this function might be for return addresses or the date. For example:

XLENT Software
P.O. Box 5228
Springfield, VA 22150
(703) 644-8881

March 14, 1986

The above is an example of right alignment. Like the centering function, there is a shortcut to right aligning a single line of text without the use of format lines and directives. Just predede the line with two OPTION+C (XL/XE) or CONTROL+C (400/800) characters.

Yet another feature is right justification. The 'ju1' directive turns this feature on, the 'ju0' directive turns it off. When right justification is on, during printout extra spaces are added between some of the words on each line so all lines 'line up' at the right margin. You have no doubt noticed by now, how all of the lines in this paragraph end in exactly the same column. This paragraph is printed with right justification on.

ju - right justification directive

21. HEADERS AND FOOTERS

hd - header directie
ft - footer directive

With this word processor you have the ability to have both a header and a footer printed on each page of the document. A header is a line of text printed at the top of the page. It usually contains the title, date, author's name, or page number, but it may contain any information you wish. A footer is similar to a header except it is printed at the bottom of the page. The header and the footer are not counted as part of the number of lines set by the 'lp' directive.

The format for setting up the header is:

Press: OPTION+F (XL/XE) or CTRL+F (400/800)
Type: hdN:left part;middle part;right part
Press: RETURN

Example: Fhd2:XLENT Software;;Page @

The 'N' after the 'hd' directive represents the number of lines above the text the header will be printed. If 'N' is 1 then the header will appear immediately above the body of text. A colon MUST follow the number represented by 'N'.

The string that follows the 'hdN:' directive consists of three parts separated by semi-colons. The left part will be printed against the left margin, the middle part will be

centered, the right part will be right aligned against the right margin. All three parts do not need to be present. To skip past the left part or the center part, the semi-colons are still needed as place holders.

The following header directives are the different combinatons available:

```
FhdN:left
FhdN:;center
FhdN:left;center
FhdN:;;right
FhdN:left;;right
FhdN:;center;right
FhdN:left;center;right
```

EXAMPLE: To have a title centered 3 lines above the text the directive is:

hd3:;Title

The footer is set up in the same manner as the header. Instead of the 'hd' directive, the 'ft' (footer) directive should be used. The 'N' now refers to the number of lines below the text the footer will appear.

ftN:left part;middle part;right part

To have the page number inserted in the header or footer string use the '@' symbol. The header default is 'hd3:;;page @'. This default gives you page numbering when you print out a document.

If you change the header string, the old string is erased. Therefore, if you change the header in your document and you wish to keep page numbering, you must include the 'page @' as the right part of the header. For example, if you wanted to change the header so the author's name would be centered at the top of each page and you still wanted the page numbering, you would use the 'hd3:;author;page @' directive.

You may change 'N' of the header without disturbing the string by pressing RETURN after the colon instead of entering the string again. Changing 'N' to 0 turns off the header. To turn it back on just set 'N' to a non-zero value.

Example: hd0: - turn off the header
hd3: - turn the header back on

If a header is changed within a document, this new header won't be printed until the next page. However, if a footer is set, it will start printing at the bottom of the current page. The header is not printed on the first page unless you enter '1' when prompted with "# OF FIRST PAGE?" when printing. If you want a header other than the default on the first page, the format line containing the header directive must be at the very beginning of the document.

As you may have guessed, you can't have a semi-colon as part of your string because it will be interpreted as the divider between two parts of the header string. You also can't have the '@' symbol printed in the header because this symbol causes the page number to be printed in its position. If you need to use the '@' or ';', use user-defined characters (see later in this manual).

Printer Driver characters can be used in the header or footer strings, so you can have underlining and other printer functions in your headers and footers (see later in this manual).

CHANGING THE PAGE NUMBER IN THE DOCUMENT

You can set the page number to any number from 0 to 255 anywhere in the document using the 'p#' directive followed by the number of the page.

p# - page number directive

If the page number is in the footer, then the new page number selected will be printed at the bottom of the current page. If the page number is in the header, then the change won't appear until the top of the next page since the header has already been printed on the current page.

EXAMPLE: If you inserted the directive 'p#12' somewhere in your document. When the text formatter finds this command, the header for the current page would have already been printed. The change will begin on the next page, which will be numbered page 12

The main purpose of this feature is to allow you to change the page number in the middle of the document. If you wish to change the page number starting at the first page, user the "# OF FIRST PAGE?" prompt in the text formatter.

SETTING FOOTER AND HEADER MARGINS

The default header and footer margins are the same as the fixed left and right margins. They are not affected by relative left and right margin changes (eg. lm+5,rm-5). Therefore, when you change the fixed left and right margins, the footer and header margins also change. However, you can control the footer and header margins independently of the fixed margins. The 'xl' directive represents the footer/header left margin and the 'xr' directive represents the footer/header right margin.

xl - header/footer left margin
xr - header/footer right margin

For example, if you reset the left and right fixed margins to indent a special paragraph and a page break occurs in the middle of that paragraph, the footer on that page and the header on the next page would be printed with the new

margins. Therefore, if you want the header and footer margins to remain consistent on each page and retain the ability to change the left and right margins anywhere in the document, you would have to either use relative margin changes or the 'xl' and 'xr' directives.

If, after using the 'xl' and 'xr' directives, you wish the header and footer margins to be dependent on the left and right fixed margins again, just set both 'xl' and 'xr' to zero.

22. CHAINING FILES

If you have a very long document, you probably won't be able to fit all of it in memory at one time. However, you can divide a document up into smaller sections, where each section is a separate file on a disk. Using the link directives available you can chain these files together so, although they are edited as separate files, they are printed as if they are one large document.

Using one of the link directives, you tell the text formatter the filename of the next section of the document. The formatter then loads in this section and then continues printing where it left off.

nx - next file directive

The first of the link directives is the 'nx:' (next file) directive. On the last line of a file you would have a format line that contained the 'nx:' directive followed by the filename of the next section of the document (eg. nx:D1:FILENAME.EXT). The filename must be followed by a RETURN. The last line of every section (except the last) of a document would contain the 'nx:' directive followed by the filename of the next file to be printed or, in other words, the next link in the chain of files. Using this directive, there can be any number of links in the chain.

lk - prompted next file directive

Another directive that is very similar to the 'nx:' is the 'lk' directive. The only difference is that the 'lk' directive should NOT be followed by a filename. When the text formatter comes across the 'lk' directive (which must be on the last line of a document) printing pauses and you are asked to enter the filename of the next file. When entering the filename, you MUST include the 'D:' before the name. If you used the 'nx:' directive and you wanted to print the links of a chain of files in a different order, you would have to load in each file, change the filename, and save the files back to the disk. With the 'lk' directive, you wouldn't have to alter the text files, but only enter different filenames when asked.

ex - external file directive

Files can be linked another way using the 'ex:' directive. Like the 'nx:' directive, this directive must be followed by a filename. This directive does NOT have to be placed at the end of a text file, but can be placed anywhere in a text file. When the text formatter encounters this directive, it loads in the file specified after the 'ex:' directive, prints it, loads the original file back in, and continues printing where it left off. ALL directive settings (eg. margins, spacing, etc) are saved in memory before printing the external file and are restored when the original file is loaded back in. For example, if the left margin was 10 in the original file and the external file changes it to 15, when the original file continues printing after the linked file, the left margin will be 10. There may be any number of 'ex:' directives in the original file, but there MUST not be an 'ex:' directive in a file loaded by an 'ex:' directive.

Using the earlier analogy of a long document being a chain, where each file is a link in the chain, the files loaded using the 'ex:' directive can be likened to side branches of the main chain. There can be any number of links (using 'nx:' and 'lk' directives) in a side branch and any number of side branches off the main chain. But you can't have a side branch of a side branch.

CAUTION: The file that contains the 'ex:' directive is erased from memory when the side branch is loaded in during printout. Therefore, the main file must have been previously saved on the disk before printing. If you forget to save the file containing the 'ex:' directive it will be lost when the linked file is loaded in.

For multiple drives or the ramdisk, the word processor will reload the main file from the same drive that it was last loaded from or saved to before starting the printout.

With the 'ex:' directive, you can create what are known as batch files. Batch files are files that don't contain any text but just contain a series of 'ex:' directives which printout different sections of a document. For example, if you created a batch file called 'BOOK' that will print all the chapters of your book, it might look like this:

```
Fex:D:CHAPTER.1
Fex:D:CHAPTER.2
Fex:D:CHAPTER.3
Fex:D:CHAPTER.4
```

Now that you have this file, if you want to print your book all you have to do is load the very short file called 'BOOK' and print it. If you wanted to print only some of the chapters or print them in a different order, all you would need to do is delete or move some of the format lines and

resave 'BOOK'.

23. ADVANCED FORMAT DIRECTIVES

The following directives are not used very often, but are availabe to allow additional control of the text formatter.

lf - linefeed directive

The 'lf' (linefeed) directive is used if your printer requires a linefeed to be sent after each carriage return character. If, when you print your document, the paper does not advance and each line of the document is printed on the same line of the paper, then your printer requires the linefeeding to be turned on by using a 'lf1' directive. To turn linefeeding off, use a 'lf0' directive.

dv - divider directive

If you ever need a dividing line between two paragraphs or sections in a document, you can use the 'dv' (divider) directive. The 'dv' directive followed by any ASCII character will cause a line to be drawn from the fixed left margin to the fixed right margin (ie. relative margins are ignored) using the specified character. For example, the 'dv*' directive will draw a dividing line made up of asterisks. Other good dividing line characters are the dash ('-') and the underscore ('_').
****

of - offset directive

The 'of', offset directive, is used to offset the output to the printer. If text is not properly positioned on the paper, instead of readjusting the paper in the printer, you can have the word processor readjust the position of the text without changing any margins. Insert the 'of' directive at the start of your document and follow the 'of' with a '-' or '+' followed by the number of columns you want to move the document to the left or right. The only restriction on the 'of' directive is that you can't shift the text to the left more than the size of the left margin. For example, if the left margin is 10, the greatest offset to the left you can have is 'of-10'.

sb - send byte directive

The 'sb' (send byte) directive followed by a number, allows you to send a byte directly to the printer. For example, if you own an Epson compatible printer and you want to print your document in condensed print, you might have a 'sb15' directive at the beginning of the document. Usually most changes in the print style (eg. underlining, boldface, italics) are done using the printer driver functions (described later in the manual) and not by using the 'sb'

directive.

sk - skip text directive

There may be times when you don't want a paragraph or several paragraphs to be printed, but you do not want to delete them from the document. By setting the 'sk' (skip text) directive to one (eg. 'sk1') before a section in a document and then setting the 'sk' directive to zero (eg. 'sk0') after this section, the text formatter will ignore ALL text and formatting directives between these two 'sk' directives. The document will print out as if this section didn't exist. NOTE: the 'sk0' directive MUST be at the start of a format line.

ps:<message> - pause print directive

There are some circumstances where it is desirable to have printing pause at a particular point in the document. It could be to change the print wheel of a daisy wheel printer or to be able to change disks before a link command. By inserting a format line containing the 'ps:' directive, followed by a message into your document, printing will halt and the message will be shown on the command line of the text formatter. For example, right before the format line with an 'nx' directive, you could insert a format line with 'ps:INSERT SECOND DISK INTO DRIVE 1'. Before the 'nx' directive was executed, printing would pause and the command line would look like this:

```
INSERT SECOND DISK INTO DRIVE 1
PRESS SPACE BAR TO CONTINUE
```

You would then insert the second disk and press the space bar. You can easily construct a chain of files containing files from other disks and use the 'ps:' directive to inform yourself on when to swap disks during printout.

Several other advanced features are available to control the text formatter. However, these functions are NOT in the form of directives, but are single characters, entered from the keyboard, that can be inserted anywhere in the document.

OPTION+SPACE BAR - protected space

The first of these functions is called a "protected" or "fixed" space. The purpose of a protected space is to make sure two or more words are not divided between lines. For example, it would be bad form to have the name 'XLENT Software' printed such that the 'XLENT' was at the end of one line and the 'Software' was at the beginning of another. To ensure this would never happen, you would insert a protected space between the words. This character would be printed as a space, but prevent wordwrapping from occuring between the words. To insert a protected space, hold down OPTION while pressing the SPACE BAR. The character will show up in the editor as a inverse space.

OPTION+hyphen - soft hyphen

When printing, if a word is too long to fit on the end of the current line, the text formatter scans back through the text for the first space or hyphen ('-') and all the text after this space or hyphen is printed on the next line. If the word that is moved to the next line is very long, then the current line will be significantly shorter than all of the other lines. If right justification is on, the line will be the same length as all of the others, but there will be many spaces between each word on the line. The solution to this would be to divide the word up using a hyphen so it will be broken up into smaller parts. The problem with this solution is that, if you later deleted or added text toward the beginning of the paragraph, the long word might be able to fit on one line, so when it is printed the whole word will be printed on the same line but still have a hyphen in the middle of it. The solution to this second problem is the 'soft hyphen'. A soft hyphen disappears when it is not needed to divide a word and turns into a real hyphen if it is needed. For example, consider the word "antidisestablishmentarianism". If it is too long for the current line and is moved down to the next, the current line will be short compared to the other lines in the document. However, if we insert some soft hyphens within the word only part of the word will be moved down to the next line and the current line will be of normal length.

EXAMPLE:
If you type "anti=disestablish=mentarianism" (where the '=' represents the soft hyphen character) in your document, it would look like one of the following when printed:
IF NOT AT THE END OF THE LINE:
....antidestablishmentarianism....
IF AT THE END OF THE LINE: ....anti-
disestablishmentarianism....
OR ....antidisestablish-
mentarianism.................
How close the word was to the end of the line will determine what is printed.

You can have any number of soft hyphens in a single word. To enter the soft hyphen character in the editor, hold down OPTION and press the hyphen ('-'). The soft hyphen character is displayed as a inverse hyphen in the editor.

N=A - user defined character directive,
where N=0-9 and A=0-255.
OPTION + N - user defined character,
where N=0-9

If your printer has the capability to print special characters that are not standard ASCII characters, you can either set up a special character conversion table (dealt with later in the manual) or use user defined characters. For example, with the Gemini 10x printer, character 123 is a brace bracket, but this character is not available from the

Atari keyboard. If you want to use this character anywhere in your document, you can create a user defined character. On a format line you could have a directive that looks like '1=123'. The number before the '=' is the number of the user defined character. This can be any number from 0 to 9. The number after the '=' is the value that the printer requires to print the desired character (check the character table of your manual for the proper values). This value can be any number from 0 to 255. After defining the character, to insert it into your document hold down OPTION and press the number of the user defined character (0-9). In this example, you would press OPTION+1 to insert the brace bracket into the text. It should be noted that the format line that contains the definition must appear earlier in the document than the OPTION+number characters. User defined characters can be used in headers and footers.

24. MULTIPLE DIRECTIVES ON ONE FORMAT LINE

To save space in a document, you can put several directives on one format line by separating the directives by colons. For example, 'lm10:rm70:spl:lfl'. The total length of one format line cannot exceed 255 characters.

Some directives must either be placed on their own format line or be the last directive in a string of format lines. Therefore, you cannot place any two of these special directives on a single format line. These directives are 'nx', 'ex', 'lk', 'ps', 'ln', 'fp', 'ft', 'hd' and 'ep' ('ep' is described later in the manual).

25. CONTROLLING YOUR PRINTER'S SPECIAL FEATURES

INTERNATIONAL & SPECIAL CHARACTERS (XL/XE ONLY)

SHIFT+CONTROL+S - load character set

By pressing the CONTROL key and A-Z,'.',',',or ';', special characters will appear in your document. These are usually international characters (letters from other languages). However, you can create your own font that contains other characters that your printer is capable of printing. For example, using SHIFT+CTRL+S, load 'PERFECT.FNT'. Now, if you press CONTROL and one of the keys, various mathematical and scientific symbols will appear. With the printer driver construction set you can create a conversion table so that these special characters are printed properly on your printer. See the section on Printer Driver Construction later in the manual.

PRINTER FEATURES (BOTH VERSIONS)

OPTION+letter - function on/off switch,
CONTROL+letter where letter is A-Z except for 'C' & 'F'

Other special characters that you can insert into your document are the characters created by OPTION (or CONTROL on the 400/800) plus A to Z (except C and F which are used for centering and format lines). These characters cause a function to be turned on and off. These functions include boldface, underlining, and any other function your printer is capable of. For example, OPTION+U might turn underlining on and a second OPTION+U would turn it off. However, you must use the printer driver construction set to associate the special characters with your printer's functions.

When printing your document to the screen, the international characters are printed without accents and the printer function (eg. underlining) characters are ignored.

26. MAILMERGE FEATURE

Mailmerging is a technique which allows you to create form documents and letters. For example, you may have a form letter which you send to several people in which you only need to change the address and salutation.

First you must create the form letter using a special character to indicate where each element (eg. name, address, city, etc.) will be inserted when the form letters are printed out. The form letter that contains these insert markers is called the template. After creating the template, you must create your list of names (refered to as the data file). The data file is a separate disk file which contains several entries or records. Each record contains all of the words or phrases that will be inserted into the template at the insert markers.

OPTION+INSERT - data insert marker.

Press OPTION plus INSERT to place a data insert marker in your document. This shows up as an inverse '>' symbol.

This may sound confusing at first, so for an example let's use a simple Christmas card list. Each letter will consist of the person's address, a salutation (Dear John:), and the form letter (wishing them a Merry Christmas). The records in this case would consist of the address of the people you are sending them to and their first names (to follow the 'Dear').

In the data file each element must end with a RETURN (this RETURN acts as a divider between elements and is not inserted into the actual document during the mailmerge). Do not put any extra RETURN characters between the different records.

In our example the DATA FILE might look like this:

```
Mr. and Mrs. John Doe
555 Elm Street
San Diego, California  92808
John and Julie
Mr. and Mrs. John Smith
775 Oak Lane
San Francisco, California  93890
John and Martha
Miss Joan Jones
232 Maple Crescent
New York, New York  90625
Joan
```

The template might look like this:

```
>
>
>

Dear >:

Hope you have a Merry Christmas

Yours truly,


Your name
```

The first three insert markers are for the three lines of the address, the fourth insert marker is where the peoples' first names will be inserted.

To use the mailmerge feature, the template must be in memory and you must open the data file to be read from the editor, using OPTION+O.

OPTION+O - open data file for mailmerge

After pressing OPTION+O, you will be asked to "Enter Filename of RECORDS file:". Put the disk with the data file on it into the proper disk drive, enter the filename, and press RETURN. The file will be opened (or a disk error will be displayed) and you will be returned to the editor. You are now ready to use the mailmerge option.

When you enter the text formatter, the first prompt is the special function options. Press 'M' for mailmerge. After answering the rest of the questions, form letters will print out until all of the records are used up. When you return to the editor after the letters have printed, the template will be unchanged.

The function mentioned above only merges the template and data files for printing. If you want to have the elements permanently inserted into the template use OPTION+I.

OPTION+i - insert data file elements into template.

After pressing OPTION+I, you will see that the data insert markers have been replaced with the elements of one record. The file is no longer a template, since there are no longer any data insert markers. This file can be treated as an ordinary document. If you want to create another 'permanently merged' file using the same data file, you must load the template back into memory and use OPTION+I again. If you want to skip the first couple of records before you permanently insert a record, you can use the text formatter mailmerge option and send the output to the screen. Stop the printout using the space bar before the record you want is inserted. Press ESC to get back to the editor and then press OPTION+I to permanently insert the record you want.

The template can be several files long using links to chain them together.

The data insert markers can be placed within a body of text, but if the element being inserted is too long for the end of the current line, it will NOT be moved down to the next line. Because of this, you must make sure the element being inserted doesn't occur at the end of a line. One method of doing this is to use protected spaces (OPTION+SPACE) between the data insert marker and the word to the right of it to create a long string of characters without any spaces. This way the data insert marker will be moved down to the next line before a record is inserted.

If your template is:
... the > jumps over the lazy dog.

Insert protected spaces(represented by *):
... the >*jumps*over the lazy dog.

If the end of a line occured in the middle of 'jumps', without the protected spaces, 'jumps' would be moved down to the next line and the insert marker would be at the end of the line. When the element was inserted at the insert marker's position, the inserted word or phrase would print past the right margin.

However, with the protected spaces, if the insert marker is within 12 characters (length of '>*jumps*over') from the right margin, the insert marker will be moved down to the next line. Otherwise, without protected spaces, the element would be inserted and none, one, or both of the words 'jumps' and 'over' would be moved down to the next line to make room for the inserted element on the current line. Now, any element less than 12 characters, will be assured of not printing past the right margin. If the expected element to be inserted was greater that 12 characters you could always use more protected spaces.

MAILMERGE WITH SYNFILE AND OTHER DATABASES

SynFile and other database programs can be used to create the data files for mailmerge from their databases. On SynFile, select the REPORTS section and the LABELS option. Organize the way you would like the records printed out. Each label is a record and each line of the label is an element. For output, select one label per row, NO lines between labels, and output to disk. The output file can be used as a data file and you now need to create a template file to merge the data file with.

If you own a database other than SynFile and you have the ability to print records in label form to disk. Just use a method similar to the one outlined above.

27. DOUBLE COLUMN PRINTING (XL/XE Version only)

When entering the print option, the first question displayed is:

```
SPECIAL: MERGE, # OF COPIES,
         DOUBLE COLUMNS (M/N/D)? SKIP
```

These are the special functions of the formatter. By pressing RETURN, you SKIP by the special functions. To get double column printing, press 'D'.

The next four prompts you will encounter are:

```
 LEFT MARGIN OF COLUMN 1:
RIGHT MARGIN OF COLUMN 1:
 LEFT MARGIN OF COLUMN 2:
RIGHT MARGIN OF COLUMN 2:
```

At each of these prompts you enter the desired margin and press RETURN. There are no default values for these margins, but pressing RETURN at any of these prompts will leave the margin set to the values entered during the last printout. However, all values are set to zero every time the word processor is loaded.

The next prompt is:
HOW MANY PASSES (1/2)? 1

With a one pass double column printout, both columns are printed as the printhead moves across each row. In a two pass double column printout, the first column is printed, you roll the paper back up to the top of the page (or if you have a reverse linefeed function on your printer, this is done automatically) and the second column is printed. Although the one pass method is faster and easier, it also has more limitations (see below). To select the two pass method, press '2' to this prompt. Any other key selects the one pass method.

LIMITATIONS OF DOUBLE COLUMN PRINTING

1. Do not set fixed left or right margins in your document (eg. lm10:rm70). You set the margins after selecting the double column feature. To change your margins within the document use relative margins only (eg. lm+5:rm-5).

2. Since header and footer margins are normally based on the left and right fixed margins and the fixed margins change when alternating between columns, you should make the header/footer margins separate from the fixed margins. (eg. xl10:xr70)

TWO PASS DOUBLE COLUMNS

The two pass method doesn't have very many limitations. After selecting the two pass method, the original SPECIAL prompt is redisplayed so you may select one of the two other special features (mailmerge, number of copies). If your printer has the reverse linefeed function, the control codes for reverse linefeed should be placed in the OPTION+Z sequence when you create your printer driver (see printer driver construction). If not, printing will pause at the end of the first column to let you roll the paper back to where the second column will begin, then press the SPACE BAR to continue.

ONE PASS DOUBLE COLUMNS

The one pass method, although faster and easier, has more limitations than the two pass method.

You cannot use any of the other two special functions (mailmerge, number of copies) as well as any of the following formatting directives:
sp - line spacing (always single spacing)
fp - force paging
ln - print blank lines
nx - next file link
ex - external file link
lk - non-specific file link

Restrictions: The directives 'pp' (physical page length), 'lp' (lines per page), 'ep' (external print), and 'cl' (current line) can be used at the very start of a document or anywhere within text that is printed in the first column. This means you should have a print preview to make sure you are putting these directives in 'column 1' text. Defining 'user-defined characters' affects both columns, therefore, avoid redefining user defined characters. You might want to define all the desired characters at the beginning of the document.

28. PRINTER DRIVERS

The purpose of the printer driver is to allow you to use all of the special functions of your printer (eg. underlining, superscripts, etc.) and to make access to these functions as simple as possible.

One of the first things you should do before you start doing any serious work with the word processor is to setup a printer driver for your printer. There is a separate program on the master disk that you use to create your custom driver.

Place your program disk in the drive and turn on the computer. When the drive comes to life, press any key. After a short while a menu will appear. Use the cursor keys to select the "Printer Driver Construction" option and press RETURN.

When this program has loaded, you will see the letters of the alphabet (excluding C and F) in inverse video down the left side of the screen. The screen is the usual blue color except for the line with the 'A' at the left, which is black. To move this black bar up and down the rows, use the up and down arrow keys (without CONTROL). These letters represent the characters (with CONTROL or OPTION) that you will enter in the editor to have certain printer functions start and stop during printing. The 'C' is reserved for centering lines and the 'F' is reserved for indicating print format lines. When you have positioned the black bar over the row with the letter you wish to represent a certain function (eg. U might represent underlining), press RETURN.

Somewhere in your printer manual you should find a list of control codes-- these are special numbers you send to the printer to start or stop certain functions. For example, on Epson compatibles, the numbers 27, 45, and 1 will start underlining and 27, 45, and 0 will stop underlining. Look in your manual for the control code that turns on the function and the control code that turns off the function that you wish to select.

Now that you have selected the desired letter by positioning the black bar and pressing return, you must enter the control codes. The first message that appears on the command line (at the very top of the screen) is "FUNCTION ON: Enter byte #1:". Enter the first number of the control code that turns the desired function on and press RETURN. You will then be asked for byte 2 and then after that byte 3. If the control code is only 1 or 2 bytes, press RETURN when it asks for more numbers. After entering byte number 3, you will see the message "FUNCTION OFF: Enter byte #1:". Use the same method to enter the control code for turning the desired function off. The next message is "DESCRIPTION (UP TO 15 CHARACTERS)". At this point you enter a description of the function you have just entered the control codes for. This description is used in the printer

driver help screen in the editor. After entering the description and pressing RETURN, you will see the description appear in the row beside the letter you selected with the black bar.

Repeat this process to select functions for the other letters. Don't worry if the letter doesn't exactly match the function (eg. T for subscripts), the help screen in the editor will help you if you forget what letter represents the function you want.

For the most part it does not matter which letter is used to control which function. However, the letter 'Z' is reserved for the reverse linefeed code (used in two pass double column printing). When entering the codes for the letter 'Z', enter the reverse linefeed code as "FUNCTION ON" and just press RETURN to skip the "FUNCTION OFF" prompt. Also, the letter 'X' should be used for expanded (double width) print. This is so titles printed in expanded print are centered and right aligned properly. Only the lines of the title that contain the OPTION+X (or CTRL+X on 400/800) character will be centered and right aligned properly. For example, in the following title:

```
Fcn1
Xtitle
author
dateX
Fcn0
```

only the first and third line will be centered properly. To correct this problem, turn expanded print on and off on each line of the title.

Other editing features are SHIFT+CLEAR to erase all entries and DELETE/BK SP to erase the entry in the row the black bar is on. NOTE: If you want to CHANGE a function, you must use this key to delete the current function before entering a new function.

After you have finished entering all of the desired functions you will probably want to save the driver. Press 'D' to select the disk menu. The command line will now contain the message:

1-DIR 2-LOAD 3-SAVE 4-RENAME

Press the corresponding number to select the desired function:

1. DIR - displays the contents of the disk in drive 1. When the directory is displayed, press any key to return to the disk menu.

2. LOAD - allows you to load a driver from drive 1. This allows you to edit or add to a current driver. You will be asked for the name of the driver you wish to load.

3. SAVE - allows you to save the driver in memory to disk drive 1. You will be asked for the name you wish the driver to be called. To have the word processor use the driver you create, it must be saved on the disk that contains the word processor and it must be called "DRIVER.SYS".

4. RENAME - allows you to change the name of a file on the disk in drive 1. You may want to change the name of a driver to or from DRIVER.SYS. You will be asked for the old name and then the new name.

Now when you use the editor, if you selected the 'I' to represent italics, press OPTION (or CONTROL on 400/800) plus 'I' once before the word(s) you wish to be printed in italics and once again after, to cancel italic print. This same method is used for all defined functions.

29. INTERNATIONAL CHARACTERS (XL/XE ONLY)

By pressing CONTROL plus the period, comma, semi-colon, or any letter, you can insert international characters into your document. The main use of international characters is for using other languages in your document. However, like the printer functions, each printer requires different codes (a sequence of numbers) to be sent to it before it will print these characters. And also like the printer functions, you must use the printer driver construction program to create a table of codes that will translate between the word processor and your printer, before your printer will print these international characters properly. You will need to consult your printer manual to see which international characters your printer has the capability to print, and what codes need to be sent to the printer to have these characters printed. On some printers only one number is required to print the desired character. Other printers require a sequence of codes that will: select one of the printer's international character sets, select the desired character in this set, and then re-select the original character set. Some printers have a selection of accent characters, so, in order to print a letter with an accent, you would print the letter, send a backspace code to backup the printhead, and then print the accent character.

NOTE: If you own an ATARI 1027 or 1025, no conversion is needed between the characters of the word processor and the characters of the printer. Therefore, do not bother creating a conversion file. However, at the beginning of your document, you must select the international character printing mode. You can do this by either setting up an OPTION+key sequence in the printer driver that contains the proper codes and insert this character at the start of your document or use 'sb' directives on a format line at the beginning of your document. For example, on the Atari 1027 you could have 'sb27:sb23' at the start of your document to turn the international character mode of the printer on.

To load the printer driver construction program, put the program disk in the drive and turn on your computer. When the drive starts, press any key. You will get a menu. Choose the printer driver selection and press RETURN. You will see the screen used to create a printer driver for your printer's functions (eg. underlining, boldface, etc.). Press ESC to go to the screen for creating the international character conversion table. Pressing ESC will flip back and forth between these two screens and you may create both types of printer driver files at the same time.

On the international character screen, you will see a row of 29 international characters and, on the row below, an arrow pointing at the first character. Using the left and right arrow keys (without CONTROL), you can move this arrow so it will point at any of the international characters. When you wish to enter the conversion codes for one of these characters, move the arrow so it points at this character and press RETURN. Now you must enter the codes, one number at a time, that will get your printer to print the selected character. You can enter up to eight numbers, but if you don't need that many just press RETURN when asked for more.

After entering the codes, you will be able to move the arrow to select another character. When you have entered the codes for a particular character, that character appears in inverse video. SHIFT+CLEAR will clear all of the entries that have been made so you can start again. DELETE will erase the entry made for the character the arrow is currently pointing at. If you want to re-enter the codes for a character, you do NOT have to use the DELETE key to erase the current codes first.

Pressing 'D' while on the international character screen will display the same disk function menu that was described in the previous section. The only difference is that the LOAD and SAVE functions will load and save international character conversion files and NOT printer function files. Only conversion files named "PRINTSET.SYS" will be loaded and used by the word processor.

SPECIAL CHARACTERS (XL/XE ONLY)

When you load in a different character set (SHIFT+CONTROL+S) on the XL/XE version, the international characters are replaced by the special characters of the new font. You can insert these new special characters into your document in the same manner as international characters. Therefore, you could use one of many public domain character set editors to replace the international or Atari graphics characters of the built in fonts with other special characters that your printer is capable of printing out. Then, using the printer driver construction program, create a conversion table that would contain the codes that cause your printer to print out these characters. For example, the font "PERFECT.FNT" on the master disk replaces the international characters with

various mathematical, scientific, and greek symbols.

When you enter the international character set section of the printer driver construction program, you can press 'F' to load a new font. The row of international characters are replaced by a row of the special characters of the new font. If you loaded "PERFECT.FNT", you would see a row of greek, mathematical, and scientific symbols. Now, using the same procedure as creating an international character conversion table, you can create a special character conversion table. The only difference is, before you are asked for the codes, you will be asked for a MASK for the selected character. A MASK is just a standard ASCII character that looks a little like the special character. (ASCII characters are characters that can be entered in the editor by pressing a key or SHIFT plus a key) Since the 80 column screen preview of the word processor can only print ASCII characters, the mask is just the character that will be printed to the screen during this preview instead of the special character. For example, the mask for the British pound symbol might be 'L'. With the international characters, the mask is just the letter without the accent. When asked for the mask character, just press the desired character and then press RETURN.

REMEMBER that only the conversion file name "PRINTSET.SYS" will be loaded when loading the word processor. Even if you change fonts from the editor using the SHIFT+CONTROL+S option, the coversion file that works with that font won't be loaded in until it is renamed to "PRINTSET.SYS" and the word processor is reloaded. If you want your new font to be loaded automatically, so you don't have to keep using the SHIFT+CONTROL+S option everytime you load the word processor, just rename the font "FONT.SYS" and put it on the same disk as the word processor.

31. INSERTING PICTURES INTO DOCUMENTS

ep:<filename> - external print directive

An 'ep' (external print) directive followed by a filename, in the same form as the 'nx' and 'ex' directives, will cause the specified file to be sent, byte by byte, directly to the printer. This file can contain anything from normal text to redefined printer fonts to bit image graphic data. Using the program described below, you can redirect screen dump (hi-res picture printout) output to the disk, allowing the use of the 'ep' directive in a document to send this data from the disk to the printer during the printout of the document. Therefore, by using the 'ep' directive, you can have pictures inserted anywhere in your document during printout.

However, these pictures are not recognized by the text formatter, which means that the line counter does not change

during the printout of the picture. For example, if a picture is inserted after the fifth line of text on the current page, the text formatter will think that the text line after the picture is only line six. To get around this problem, you would use the 'cl+' (current line) directive to trick the text formatter into thinking it has printed many lines of text between the fifth and sixth lines.

The program described below allows you to put a bit image screen dump of a picture onto disk so that it can be accessed with the 'ep' directive. However, it only works with Epson compatible printers (including the Gemini 10x). Insert the master disk, turn on the computer, and press any key when the disk drive starts loading the program. After a short while a menu will appear. Use the cursor keys to select the "MICROSCREEN PICTURE FORMATTER" option and press RETURN.

When the Picture Formatter first loads in, you will see a screen that is blank except for the very top line. On the top line you will see the main option menu "Alter, Dir, load Picture, Bgraph, Icon?". Pressing ESC almost anywhere in this program will return to this main menu.

The black space below the top line, containing the main menu, is the graphics 8 workspace. If there is any data (ie. picture or text) in this workspace, you can press 'A' to alter the current data instead of loading another picture.

By pressing 'D', you can get a disk directory of the disk in drive 1. Press any key to step through the names in the directory.

By pressing 'P', you can load an uncompressed (62 sector) picture into the workspace.

Pressing 'B', allows you to load a BGRAPH (Batteries Included graphing program) picture file into the workspace.

Pressing 'I', allows you to load a TYPESETTER icon into the workspace. After entering the filename of the Typesetter icon, a cursor will appear in the workspace. This cursor looks and moves the same way as the cursor in the BASIC editor. Even though the workspace is a hi-res screen, there are only 40 cursor columns and 24 cursor rows. Move this cursor to the top left corner of the area where you want the icon to be put on the screen. Normally when the icon is overlayed on the current picture, any 'black space' in the icon will block out the picture currently in the workspace. By pressing the TAB key, while moving the cursor, the message "TRANSPARENT" will appear on the top line of the screen. Now, the current picture will show through any 'black space' in the icon, when the icon is loaded in. When you have selected the desired position for the icon, press ESC to have the icon overlayed load into the workspace.

After any of the options (except directory) of the main menu are executed, you will encounter the following series of questions:

DO YOU WISH TO ADD TEXT? - If you press 'Y', you will encounter another prompt. "Load font, Normal, International? N". If you want to load in a font from disk, press 'L'. If you want to use international characters, press 'I'. Press any other key to select the normal character set.

You will now be in the text addition mode. The hi-res screen is made up of 40 cursor columns and 24 cursor rows. Operating in this mode is very similar to the BASIC editor. You may use the cursor keys as normal and type using upper and lower case, inversed, or graphic characters (press the CONTROL plus letter). You will notice that the command line contains the word 'OPAQUE'. This means that the black areas of the character are opaque and will block out the picture on the screen area beneath it. By pressing the TAB key you may toggle back and forth between the OPAQUE mode and the TRANSPARENT mode. In the transparent mode, the black areas of the character are transparent. This means that the picture will show through the black areas.

When you are through adding text or just wish to change the character set, press the ESC key. You will be returned to the question that asks if you wish to add text to the screen. From here you can repeat the process of adding new text with a new character set or go on to the next question.

SAVE COPY OF SCREEN? - this option allows you to save a copy of the picture back to disk in the 62 sector uncompressed format, so you may load it back in later. If you have added text to the screen, you might want to save a copy so you don't have to add the text every time you use that picture with the Picture Formatter. If you press 'Y', you will be asked for the filename and it will be saved.

Using this program, you can load in pictures from your art programs, add text to them or overlay Typesetter icons on them and use this function to save the final product to the disk so it can be loaded back into your art program.

The following questions deal with how the screen will appear when it is printed.

PRINT ENTIRE SCREEN? - this option allows you to print the entire screen or just a section of it. For example, if you wanted to create a letterhead, you would draw the picture in only a few of the rows, leaving the rest of the screen blank. Using this option you can select to print only the few lines the letterhead is on. If you choose not to print the entire screen, you will be asked to position the cursor to the top left corner of the section to print and press ESC. Then you will be asked to position the cursor to the

bottom right corner of the section to print and press ESC.

NORMAL OR CONDENSED? - Since the picture is printed across the page (whereas most screen dumps print pictures sideways) some distortion of the picture occurs. In normal width, pictures tend to look stretched horizontally. In condensed, pictures tend to look stretched vertically. Some pictures tend to look better in normal width, but Typesetter icons tend to look better in condensed width. Print the picture to the printer to see which you prefer, before printing the picture to disk.

LEFT MARGIN - this option allows you to select the left margin of the picture. The default is centered (centered on a 8-1/2 inch width with 10 cpi printing). This centering takes into account the amount of the picture you are printing as well as whether it is being printed in normal or condensed width. If you wish it to be centered press RETURN, otherwise enter the desired value of the left margin number followed by RETURN.

The left margin of the picture is made up of normal text spaces (ie. six spaces per inch). Therefore if the left margin in your document is 10 and you enter '10' to the above prompt, the picture and your document will line up at the left margin.

NORMAL OR REVERSE? - this option allows you to select the printout to be black on white (normal) or white on black (reverse).

DISK OR PRINTER? - this option allows you to have the formatted output sent to the disk or printer. If you send the output to printer, this program acts as a horizontal screen dump. If you send the output to disk, you can use the 'ep' directive in your document to have pictures printed within your document.

When using the 'ep' directive in your document, it must be followed by a 'cl' directive to make up for the space used by the picture. Even though the hi-res workspace is made up of 24 cursor lines, because of the different line spacing, a picture does NOT take up the same space as 24 lines of normal printed text on a page. The ratio between the number of cursor lines on a picture and the number of normal text lines a picture takes up when printed on a page is 3 to 2. One whole graphics 8 picture contains 24 cursor lines, but takes up 16 text lines of page space (ie. 24:16 = 3:2) when printed. Therefore, after the 'ep' directive, you would have a 'cl+16' directive if an entire screen was printed. The number of text lines of page space taken up by a picture will be 2/3 of the number of cursor lines of the picture. For example, if your cursor moves 14 lines from top to bottom of the section of the workspace to be printed, you would use 'cl+10' (2/3 of 14, rounded up to the next whole number is 10) after the 'ep' directive in your document.

NOTE: Do not insert a picture near the bottom of a page, since paging will not occur in the middle of a picture.

32. INTEGRATING OTHER PROGRAMS

Many other programs can be integrated with "The First XLENT Word Processor". Below are some examples.

Using the MICROSCREEN PICTURE FORMATTER program on the master disk, you can print BGRAPH (Batteries Included) graphs in your document. You can also include any picture that is in uncompressed format. If you are using Atari Artist or Koala Pad's MicroIllustrator, pressing the INSERT key in your drawing program will save your picture as the file "PICTURE". This file is in an uncompressed format. You can also build pictures with TYPESETTER icons, add text to these pictures, and have them included in your document.

SYNFILE+ mailing lists can be merged with your own form letters. This procedure is outlined in the mailmerge section of this manual. Many programs such as SYNFILE+, SYNCALC, and SPEEDCALC (Compute Magazine) let you send printouts to the disk instead of the printer. You can have these charts printed in your documents a number of ways. You could load them into your document using the INSERT option of the load function. You could use the 'ex' directive anywhere in your document or, if this output has already been formatted for the printer (ie. printer codes and margins added), then you would use the 'ep' directive to bypass the word processor's formatter. However, with this last method, you would need to use the 'cl' directive to make up for the number of lines of the current page taken up by the chart.

Another program this word processor works well with is MEGAFONT II+ from XLENT Software. Although documents printed with MEGAFONT cannot contain printer driver functions (eg. boldface or underlining), there are many advantages to using MEGAFONT. You can have your document printed in any redefined Atari character set. You can load your own font in the editor of the word processor and use this font to edit a document. Then print your document to disk. When you want to print your document, load in MegaFont and select the lister option. Load in the font you used when you created your document. You can now print your document with the same font you created it with. Using this method on the XL/XE version, you can use any of the special characters of the font in your document and have them print to the printer exactly as they appeared on the screen while editing your document. The only way this will work properly is if there is NO file named "PRINTSET.SYS" on the word processor disk. If there is, rename it and reload the word processor.

Another special feature has been added to this word

processor for the purpose of integrating with MEGAFONT II+. The OPTION+period ('.') character is used in the same manner as the other OPTION key printer driver functions in that the first OPTION+period turns on the function and the second turns the function off. However, this character's function is meant primarily for use with MEGAFONT. By placing an OPTION+period character before and after a word (or group of words), the word will be highlighted (white on black) when printed by MEGAFONT. However, earlier versions of MEGAFONT II+ had a font splicing option, where instead of having MEGAFONT highlight the text, the text will be printed in a different font. In this case, the OPTION+period character would allow you to easily switch back and forth between the two "spliced" fonts. NOTE: The OPTION+period character can be placed in headers and footers.

33. HELP SCREENS

Pressing SELECT in the editing mode will display the printer driver help screen. This help screen displays the printer functions that can be accessed by pressing a key with OPTION (XL/XE) or CONTROL (400/800). The descriptions that were entered when creating a printer driver in the printer driver construction program are displayed on this help screen beside the letters that cause the respective functions to be implemented.

On the 400/800 version, pressing SHIFT+CONTROL+H will display the editor function help screen. This help screen gives brief descriptions of each of the SHIFT+CONTROL+key funcions.

On the XL/XE version, there are several help screens. After pressing the HELP key, the screen clears and "ENTER # OF HELP SCREEN?" appears in the command window. Press a number from 1 to 4 to display the corresponding help screen. Help screen #1 is the same help screen that the 400/800 version has. This screen deScribes the different SHIFT+CONTROL+key editor functions available. Help screen #2 displays all of the different format directives available. Help screen #3 displays a description of the most common disk error numbers. Help screen #4 displays the OPTION+key options (eg. soft hyphen, mailmerge data maRker, etc) and a table of special characters. This table shows which CONTROL+key sequences result in which characters. Normally, this table shows the international characters, but if another font is loaded in (eg. PERFECT.FNT), the special characters of that font are displayed.

XL/XE owners who also have access to the MAC/65 program (from OSS) can create their own help screens. On the master disk is a file called "HELPM65.SRC". This is self-documented source code that contains the data for the current four help screens. After changing the help screens, you would assemble the data to disk as "HELP".

APPENDIX A

Converting Graphics Files

In the November 1985 issue of ANTIC, Charles Jackson published his Rapid Graphics Converter. This utility will let you convert files from several commercial programs to the 62 sector format file used by The First XLENT Word Processor, P.S. Interface, Page Designer, Rubber Stamp and Typesetter.

Charles' program supports the following packages:

Micro Illustrator
Micropainter
Fun With Art
Paint
Visualizer
Moviemaker
Graphics Master
Atarigraphics
Graphics Machine

If you need this utility, check with your local users group, dealer or ANTIC.

APPENDIX B
PRINT SPOOLER FOR THE 130XE
version 1.0
by David Castell

INSTALLING THE SPOOLER

To use the print spooler with a cartridge or BASIC, just copy the spooler program ("SPOOL130.OBJ") to a disk with DOS on it and rename the print spooler program to "AUTORUN.SYS". Now, place this disk in your drive, install your cartridge and then turn on your computer.

To install the print spooler on "The First XLENT Wordprocessor" disk or any other disk based program, rename the current "AUTORUN.SYS" file on the program disk to "AUTO" and then rename the print spooler program ("SPOOL130.OBJ"), which should also be on the program disk, to "AUTORUN.SYS". This print spooler will automatically load and run the "AUTO" file after it has initialized.

NOTE: The print spooler will not work with disk based programs that are not DOS II oriented. Therefore, it will not work with boot programs like Print Shop.

WHAT IS A PRINT SPOOLER?

A print spooler is a program that allows you to output to the printer and use a program at the same time. For example, with a word processor you could have one document printing out at the same time you are editting another document.

LIMITATIONS

With most print spoolers, the printing process going on in the "background" would not affect the normal operation of the program at all. Unfortunately, due to the architecture of the Atari computer, this is not the case with this print spooler. When outputting to the printer, the Atari computer gathers up 40 characters and then sends them all at once serially (bit after bit) to the printer. When the computer sends this 40 character "package" to the printer, ALL other operations of the computer is temporarily halted. This means that when you are operating a program while the spooler is printing in the background, every few seconds, the program will stop "dead in its tracks" for a second.

Another limitation arises from the fact that the computer is dividing its time between outputting to the

printer and running whatever program you are using. As a result, if you have a relatively fast printer, you will notice a decline in the speed of output when the spooler is in operation.

REMEDIES

A large type-ahead buffer has been added, so when the computer pauses every few seconds during the spooling process, all characters typed during the temporary lapse are remembered and displayed when operations continue. This type-ahead buffer is in operation even if you are not printing anything out.

There may be times during the spooling operation when you do not need the computer to divide its time between the operation of a program and the printer because you have temporarily stopped using the program. If this happens, you can press SHIFT+ESC (simultaneously) to have the computer devote its time to printing. This will speed up output to the printer. Press the same combination of keys to return to the normal operation of the spooler. You may switch back and forth between these two modes as many times as you wish.

APPENDIX C

FILES ON THE WORD PROCESSOR DISK

AUTORUN.SYS	- The main loader program. Press any key when this program is loading to get the menu from which you can load the two other utility programs.
EDITOR.SYS	- The editor of the XL/XE version of the wordprocessor.
PRINT.SYS	- The text formatter of the XL/XE version of the wordprocessor.
WORDPRO.OBJ	- The 400/800 version of the wordprocessor. Can be loaded on an XL/XE computer by pressing 'W' when the highlight bar of the loader menu is over the wordprocessor option.
DRIVER.MKR	- The Printer Driver Construction Utility. This program can be loaded from the menu of the loader program.
PICTURE.MKR	- The Microscreen Picture Formatter Utility. This program can be loaded from the menu of the loader program.
HELP	- Contains the help screen information for the help screens of the XL/XE version.
HELPM65.SRC	- MAC/65 source code for the help screens of the XL/XE version. By changing this file and re-assembling it to disk as "HELP", you can create your own help screens.
DRIVER.SYS	- This file is automatically loaded by BOTH versions of the wordprocessor. This file contains printer specific information on how to access your printer's functions (eg. underlining, boldface, etc).
PRINTSET.SYS	- This file is automatically loaded by the XL/XE version of the wordprocessor. This file contains printer specific information on how to access your printer's special characters (eg. international characters).

OTHER FILES ON THE DISK

Any file that has the extension "FNT" is an alternate font that can be loaded and used with the editor. On the 400/800, an alternate font is merely for esthetics, but on the XL/XE this font contains an alternate set of special characters which replace the international characters.

Any file that has the extension "DRV" is a printer driver and is in the same format as the "DRIVER.SYS" file. The "DRIVER.SYS" file on the disk contains printer function information for EPSON compatibles. If you do not own an EPSON compatible printer, you would rename the file with the "DRV" that works with your printer. If there is not a file on the disk that works with your printer, you must create one using the printer driver contruction utility.

Any file that has the extension "SET" is a printer conversion file and is in the same format as the "PRINTSET.SYS" file. The "PRINTSET.SYS" file contains a printer conversion table for international characters for EPSON compatibles. On the XL/XE version, you can include special characters (eg. international characters) into your document. However, a conversion file is needed to send the proper codes to the printer to have it print these special characters. NOTE: Atari printers that support international characters do not require a conversion file for international chracters, therefore you should NOT have a "PRINTSET.SYS" file on the disk. The eight letter file name of the "SET" files, should identify what printer it is for and what type of conversion it is for (eg. international, math notation, etc.). For example, "G10XMAT.SET" contains a conversion table for math notation for the Gemini 10x printer. If there is not a file on the disk that does the desired conversion for you printer, you can create your own in the printer driver constuction utility.

ESC	Abort action; generally return to text editor

TEXT EDITOR COMMANDS

SHIFT+CONTROL+5	Increase background color
SHIFT+CONTROL+6	Decrease background color
SHIFT+CONTROL+7	Decrease text luminance
SHIFT+CONTROL+8	Increase text luminance
SHIFT+CONTROL+.	Change joystick speed
SHIFT+CONTROL+,	Change key repeat rate
SHIFT+CONTROL+F	Amount of free memory left in characters
SHIFT+CONTROL+?	Number of sectors needed to save document to disk
SHIFT+CONTROL+N	Number of words in document

Windows

CONTROL+SHIFT+1	Select text window 1
CONTROL+SHIFT+2	Select text window 2
CONTROL+SHIFT+3	Close text window 2
CAPS	Switch between upper and lower case
SHIFT+CONTROL+ESC	Switch between block and underline cursor
SHIFT+CONTROL+W	Switch on/off word wrap
SHIFT+CONTROL +SPACE BAR	Highlight spaces on screen
SHIFT+CONTROL+S	Load new character set
BREAK	Position cursor to beginning of next line
START	Position cursor to beginning of window
START+START	Position cursor to beginning of document
SHIFT+CONTROL+E	Position cursor to end of document
SHIFT+CONTROL +UP ARROW	Move cursor up 1 screen
SHIFT+CONTROL +DOWN ARROW	Move cursor down 1 screen
SHIFT+CONTROL+M	Mark current cursor position
SHIFT+CONTROL+G	Go to marked position

Format Line Command

CONTROL+F	Format line command for Atari 800 version (48K machines)
OPTION+F	Format line command for Atari XL/XE version (minimum 64K)

Format Line Directives

These directives follow the format line command. Most directives can be combined on a single format line. Separate the directives with a ':' (colon).

F<fd>	Flm5
F<fd1>:<fd2>:<fd3>...	Flm10:rm80:ju1

FORMAT DIRECTIVE FORMAT	EXAMPLE
<format directive>	fp
<format directive>:<text>	ex:d1:filename.ext
<format directive>N	p#10
<format directive>+N	lm+10
<format directive>-N	ai-5

where 'N' is a numeric value.

lm LEFT MARGIN	rm RIGHT MARGIN
lf LINEFEEDING	sp LINE SPACING
pp PHYSICAL PAGE LENGTH	
cn CENTERING (1=ON,0=OFF)	
ju JUSTIFICATION (1=ON,0=OFF)	p# SET PAGE NUMBER
ra RIGHT ALIGNMENT (1=ON,0=OFF)	lp LINES PER PAGE
ai AUTOMATIC INDENTATION	mr MARGIN RELEASE
xl HEADER/FOOTER LEFT MARGIN	
sb SEND BYTE TO PRINTER	
xr HEADER/FOOTER RIGHT MARGIN	cl CURRENT LINE
sk SKIP TEXT (1=ON,0=OFF)	of OFFSET PRINTING
dv PRINT DIVIDING LINE	

"N=B" on a format line will assign user defined character 'N' (0-9) the value 'B' (0-255)

---

fp FORCE PAGING (NEXT PAGE)
ln PRINT BLANK LINES
nx: LINK TO NEXT FILE
ex: EXTERNAL FILE LINE
ep: EXTERNAL PRINT
lk NON-SPECIFIC LINK
ps: PAUSE & PRINT MESSAGE
hd: SET HEADER
ft: SET FOOTER

All directives after the dividing line, must be the last directive on a format line. A colon after a two letter directive means that a colon must precede the string that follows this directive.

Delete Commands

BK SP	Delete character to left of cursor
CONTROL+DELETE	Delete character at the cursor
SHIFT+DELETE	Delete word, sentence, paragraph or line
SHIFT+CONTROL+P	Delete text
SHIFT+CONTROL+CLR	Delete text from cursor position to end of document
SHIFT+CLEAR	Erase document in memory

Insert Commands

SHIFT+INSERT	Switch between Insert and Overwrite mode
CONTROL+INSERT	Insert space at the cursor
SHIFT+CONTROL +INSERT	Insert 6 blank lines at cursor

Tab Commands

TAB	Move cursor to next tab marker
SHIFT+TAB	Set tab marker at current cursor position
CONTROL+TAB	Clear tab marker at current cursor position
SHIFT+CONTROL+TAB	Clear all tab markers
SHIFT+CONTROL+R	Set tab markers to every 5th column
ATARI or INVERSE KEY	Special alignment mode. The first key pressed after the logo key is the END character. Press END character again to cancel alignment mode.

Buffer Text Editor

SHIFT+CONTROL+T	Enter buffer text editor
SHIFT+CONTROL+U	Disk utilities menu

OTHER TEXT COMMANDS

To insert these format commands into your document, press OPTION plus one of the following keys:

```
0 to 9         = User defined characters
HYPHEN ('-')   = Soft-hypen
INSERT         = Mailmerge data insert marker
SPACE BAR      = Protected Space
```

To insert these format commands into your document, press OPTION plus one of the following keys:

```
C              = To center the current line
CC (C twice)   = To right align the current line
```

SEARCH FUNCTION (Glasses)

CONTROL+DELETE   Perform search and delete text

PRINT FUNCTION (P)

ESC Return to text editor

ANY KEY   While printing, will pause printing

SPACE BAR Continue interrupted printing

RETURN   Position to beginning of Print Function

BREAK   For screen preview, turns on/off printhead movement

ERRATA SHEET

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SHIFT+CONTROL+O - open data file for mailmerge

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SHIFT+CONTROL+I - insert data file elements into template